Watershed Watch Network of New Jersey

The NJDEP has created a four-tiered approach to volunteer water quality monitoring. The tiers are defined by the purpose of monitoring, the intended data use and the intended data users.

The four-tiered approach allows for volunteers to know upfront what they need to do to get their data used by the NJDEP and assures the Department's data users of the quality of the data.

The four tiers are:

Tier A: Environmental Education (not addressed below)

Tier B: Stewardship

Tier C: Community Assessment

•Tier D: Indicators/Regulatory Response

Examples of how the Tiers may apply are: if the purpose of a monitoring project is for regulatory response from the NJDEP then the water resource managers need data of a high level of quality assurance. The organization will need to define the intended data use, and define the primary data user. The organization will need a quality assurance project plan (QAPP) that has been reviewed by the intended data users. This type of monitoring activity would be a Tier D. A second example is, if the purpose of a monitoring program is to collect data to educate local residents within a watershed, the level of rigor is not as detailed. This type of monitoring activity would be considered Tier A.

Once volunteers define the purposes of the monitoring efforts, please contact the Watershed Watch Network at the NJDEP at 609-292-2113 to help determine your data uses.

Biological Monitoring Requirements

Study design needed

Site selection required before going out in the field

Training Required, formal or informal

Identification down to Order level required

Equipment inspected annually

Map required

Chemical Monitoring Requirements

Study design needed

Site selection required before going out in the field

Training Required, formal or informal

Simple water quality test kits okay to use

Equipment inspected annually

Map required

Visual Monitoring Requirements

Study design needed

Photo documentation required

Training Required, formal or informal

Annual equipment inspections

Map required

Physical Monitoring Requirements

Study design needed

Site selection required before going out in the field

Simple water quality test kits okay to use

Training Required, formal or informal

Annual equipment inspections

Map required

Biological Monitoring Requirements

Internally approved QAPP, intended data user approved and copy on file with Volunteer Monitoring Program

Fixed Monitoring Stations

Training Required

Field visit with Volunteer Monitoring Coordinator

Identification down to Family level required

Annual equipment inspection

GPS coordinates or paper copy of topographic map or a GIS map required

Chemical Monitoring Requirements

Internally approved QAPP, intended data user approved and copy on file with the Volunteer Monitoring Program

Fixed Monitoring Stations

Training Required

Field visit with Volunteer Monitoring Coordinator

Test Kits with statement of accuracy from manufacturer on file with data user

Calibration of sampling equipment needed

GPS coordinates or paper copy of topographic map or a GIS map required

Visual Monitoring Requirements

Internally approved QAPP, intended data users approved and copy on file with Volunteer Monitoring Program

Fixed Monitoring Stations

Photo documentation required

Training Required

Field visit with Volunteer Monitoring Coordinator

GPS coordinates or paper copy of topographic map or a GIS map required

Physical Monitoring Requirements

Internally approved QAPP, intended data users approved and copy on file with Volunteer Monitoring Program

Fixed Monitoring Stations

Test Kits with statement of accuracy from manufacturer on file with data user

Training Required

Field Visit with Volunteer Monitoring Coordinator

Calibration of sampling equipment needed

GPS coordinates or paper copy of topographic map or a GIS map required

Biological Monitoring Requirements

QAPP approved by data user and the Office of Quality Assurance on file at DEP, Volunteer Monitoring Program

Fixed Monitoring Stations

Training Required

Possible annual audit via Office of Quality Assurance &/or Volunteer Monitoring Coordinator

Samples to be sent to a lab for analysis or must present proof that the samples are accurately identified by supervisor on site. Samples should be sent out to a certified lab for accuracy check

GPS coordinates or paper copy of topographic map or a GIS map required

Identification down to Family level and/or Genus and Species

Chemical Monitoring Requirements

QAPP approved by data user and the Office of Quality Assurance on file at DEP, Volunteer Monitoring Program

Fixed Monitoring Stations

Training Required

Possible annual audit via Office of Quality Assurance &/or Volunteer Monitoring Coordinator

Meter Sampling, no test kits

Samples sent to lab or for "analysis immediately parameters" DEP Lab Certified Supervisor must be present. Samples should be sent out to a DEP certified lab for accuracy check

GPS coordinates or paper copy of topographic map or a GIS map required

Calibration of equipment needed with proper documentation

Visual Monitoring Requirements

QAPP approved by data user and the Office of Quality Assurance on file at DEP, Volunteer Monitoring Program

Fixed Monitoring Stations

Training Required

Possible annual audit via Office of Quality Assurance &/or Volunteer Monitoring Coordinator

GPS coordinates or paper copy of topographic map or a GIS map required

Photo documentation required

Physical Monitoring Requirements

QAPP approved by data user and the Office of Quality Assurance on file at DEP, Volunteer Monitoring Program

Fixed Monitoring Stations

Training Required

Possible annual audit via Office of Quality Assurance &/or Volunteer Monitoring Coordinator

Samples sent to lab or for "analysis immediately parameters" DEP Lab Certified Supervisor must be present.

GPS coordinates or paper copy of topographic map or a GIS map required

Calibration of equipment needed with proper documentation